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## THE FUNGUS TRIBE.

## CHAPTER III.

WE have before stated that the greater number of esculent fungi belong to the tribe *Pileati*, under which head are classed the divisions *Agaricus*, *Boletus*, *Hydnum*, *Polyporus*, *Fistulina*, *Cantharellus*, and several other genera, all of which furnish more or fewer edible species. Of these, however, we find the most under the head *Agaricus*, a division which takes its name from *Agaria*, a kingdom of Sarmatia. Our English word mushroom (by which all kinds of edible fungi are commonly designated) has a French origin, and comes from the word *mouceron*; "originally," says Badham, "spelled *mousseron*; and belongs of right to that most dainty of funguses, the *Agaricus primulus*, which grows amidst tender herbage and moss, whence its name." *Champignon* is also of French derivation; but whilst that name in France is generic, the English make it specific, and restrict it to a single species, the *A. oreades*, or "fairy-ring mushroom," of which more hereafter. *Agaricus primulus* has also a right to the cognomen "fairy-ring mushroom," for it, as well as *A. oreades*, *A. orcella*, *A. Georgii*, *A. personatus*, and our common mushroom, *A. campestris*, has a share in making those mystic rings which in former days scared many a rural hind and maiden, and caused them to deviate from their direct course in passing through the fields where they were to be seen, lest, if they once entered that magic boundary, they should come under the power of the fairies, or (as they were called in Devonshire) *pixies*, and should be by them *pixy-led*; that is, led off into bye-ways, and so into some pathless waste. As Puck says:—

"I'll follow you, I'll lead you about a round.  
Sometimes a horse I'll be; sometimes a hound,  
A hog, a headless bear; sometimes a fire;  
And neigh, and grunt, and bark, and roar and burn,  
Like horse, hound, hog, bear, fire, at every turn."

So did these poor country-people fancy the fairies would hobgoblinise them, if once they dared to trespass on their domain.

We will not here enter into the speculations of botanists on the mode by which these rings are formed; it will be enough to say, that it is now generally acknowledged that they are produced by the growth of fungi. The *A. primulus* is reproduced in these rings every year about the same time, the circle continuing to enlarge until it breaks up into irregular lines, which is a sure indication that the species is about to disappear from that place; an unbroken ring being a certain promise of a good crop the next year. It is a large fungus, and very abundant; Dr. Badham says he has collected in one field from twenty to twenty-five pounds weight. Professor Balbi writes to Persoon: "This rare and most delicious *Agaric*, the *mouceron* of Bulliard, and the *A. primulus* of other authors, abounds on the hills above the valley of Stafora, near Bobbio, where it is called *Spinaroli*, and is in great request. The country-people eat it fresh in a variety of ways, or they dry and sell it for from twelve to sixteen francs a pound." It is a thick, convex, fleshy mushroom, irregular in shape, of a cream-coloured, or buffish, or gray, or reddish tint, with very numerous white gills, and has the advantage of appearing in spring, when few other edible species are to be procured. In Rome "it is sent in little baskets as presents to patrons, fees to medical men, and bribes to Roman lawyers." How surprised would our learned functionaries in law or physic be to receive a little basket of what they would probably call "toadstools," in return for their efforts on behalf of their clients or patients!

*A. Georgii*, another of these gregarious ring-forming species, is one of no small interest; its cap is at first conico-campulate, and covered with white shreds; but when fully expanded these have all disappeared, and it becomes beautifully white and shining. It grows in pastures, and under trees, and some of the individuals attain a most enormous size. Dr. Withering says: "Mr. Stackhouse had repeatedly mentioned to me a large esculent fungus found on the sea-coast in Cornwall, which is, I believe, a monstrous variety of this species. Its whole habit is very large, the button as big

as a potato, the expanded pileus eighteen inches over; the stem as thick as a man's wrist," etc. He also mentions a specimen found on an old hot-bed, which weighed fourteen pounds. But huge as this fungus must have been, it by no means equals one mentioned by Clusius in his "History of Plants," which was found in Pannonia. This immense specimen (supposed to have been *Polyporus frondosus*), "after satisfying the cravings of a large Mycophilous household, enough of it remained to fill a chariot!"

The Hungarians suppose the *Agaric*, *A. Georgii*, or as some authors call it, *A. exquissitus*, to be a special gift from St. George. It has several trivial names—"the Horse-mushroom," from its immense size; and "White caps," under which name it is sold for making ketchup. There are so many other interesting species of *Agarics* which invite our attention, that it is difficult to know which of them to select for especial notice. We have named *A. oreades*, and *A. personatus*, as being species which grow in rings. The former is a small buff mushroom, its common names being "Champignon," and "Scotch-bonnets." It is very common, according to Badham; Hyde-park produces them abundantly in some seasons. He says, that in the French *à-la-mode* beef-shops, this species of fungus is in great request, and that it imparts a delicious flavour to rich soups and gravies. When dried (as it is the custom of the French and Italians to use them), these champignons may be kept for many years, and their flavour becomes improved by the process. *A. personatus* is sold in Covent-garden Market, under the name of "Blewits." It is of a pale bistre, or purple lilac, occasionally violet, the cap from two to six inches broad, and the stem from one to three inches high. It grows in rings or in clusters amongst grass, usually appearing in October.

Our cut No. 1 represents *Agaricus comatus*, according to Puccinelli, as quoted by Badham, "in great repute about Via Reggio and Lucca." It may be found in meadows and waste places in early spring, and the young specimens are used for making ketchup. It is called "the maned *agaric*," from its shaggy edge. The cap is fleshy, white, and scaly, the lamellæ or gills changing to red-purple and to black, and showing their dark hue through the skin of the cap as it advances in age.

No. 2 is of a species which grows on wood—*Agaricus ostreatus*. It may be found on dead trees in spring and autumn. This fungus varies much in size and colour; but where it has once been found, there it is pretty sure to grow for many successive years. It is a pretty fungus, varying in hue; but though occasionally found quite white, it is in general of a cinereous brown with white gills, and has either no stem, or one sub-lateral.

*A. rubescens* (fig. 3), is another very delicate *Agaric* which grows in woods, particularly of oak or chesnut, and is found both in summer and autumn; and *A. caudicinus* (fig. 4), a beautiful little cinnamon-coloured fungus, which grows on trees, and is very much prized in Southern Italy, is also worthy of our notice; the elegant little white field *Agaric*, *A. Virgineus*, which abounds in our pastures in autumn, is also a very attractive species. But space does not allow of our naming any others of this tribe, and we can barely hint at the rich store of food which is offered to us by the other genera of the tribe *Pileati*.

The genus *Boletus* differs from the *Agarics* in having, instead of gills, a series of vertical tubes, aggregated under the cap and encircling the stem, which look, when seen altogether, like a slice of fine sponge. *B. edulis* and *B. scaber* are the species most in vogue, though several others are innocuous and agreeable. *B. edulis* is a huge fungus from six to seven inches across; it varies in colour from light brown to bronze, bay, deep brown, etc. The tubes are at first white, then yellow, lastly, of an olive or yellow-green. The stem is always thick and solid; at first white, but changing to fawn

colour; and it is beautifully mapped or meshed with reticulations peculiar to itself. This species seems to have been well known to the ancient Romans, and appears to have been that called *Suillus*. "As to the best manner of cooking *B. edulis*, this must be left to the taste of the gourmand; in every way it is good. Its tender and juicy flesh, its delicate and sapid flavour, render it equally acceptable to the plain and to the accomplished cook. It imparts a relish alike to the homely hash and the dainty ragout; and may be truly said to improve every dish of which it is a constituent." So says Dr. Badham, and he is backed by other authorities, who agree in stating *B. edulis* to be (as its name implies) very excellent eating.

The *Hydnum* is another genus of this tribe, which affords good food. Our figure 5 represents *H. repandum*, a tawny red species, which occurs in woods of oak and pine, growing frequently with others. This is the only esculent species in the genus *Hydnum*, and is said to have a flavour of oysters. In this genus the under surface of the cap presents a series of conical teeth or bristles. For this reason *Hydnum repandum* is called in Italy *Steccherino*, or "the hedgehog."

The genus *Fistulina* presents us with but one edible species, *F. hepatica*. This is that strange-looking fungus which resembles in its early stages a huge red tongue, lapped out at us from the trunk of some oak or chesnut, far above our heads; whence its vulgar name in Italy is *Lingua quercina*, or *Lingua di castagna*. In its later growth, it looks more like a lump of dark liver than any other substance, whence its specific name. One individual of this species is said to have weighed nearly thirty pounds, and another is mentioned as nearly five feet in girth, and weighing above thirty pounds. "No fungus yields a richer gravy," says Badham, "and though rather tough, when grilled it is scarcely to be distinguished from broiled meat."

We must now turn to the second tribe into which our order is divided, the *Clavati*. This, which furnishes a vast variety of our most interesting fungi, supplies, nevertheless, but one genus which contains any edible species. This genus is *Clavaria*, and all its species are esculent. They are called *Clavaria* from their simple clavate form. The whole genus is exceedingly pretty; some of them growing on trees, others clustering amongst grass. *C. rugosa* is of ivory smoothness and of the purest white. It grows from two to two and a half inches high, is simply branched, but each branch is curved. It grows in clusters, and gives you an instant reminder of a handful of the convoluted kernels of walnuts after they have been delicately peeled for eating. Another yellow species grows widely amongst grass, so as to quite yellow the surface of the place on which it has taken up its abode. We have seen on a hill at Tor, near Torquay, acres of ground on which you could not walk many yards without treading on clustered masses of this pretty pale yellow *Clavaria*, which smells (as does its white congener, *C. rugosa*) so purely mushroom-like, that you cannot doubt of its good qualities. *C. coralloides* (fig. 6), pronounced by Vittadini, *esculenta delicosa*, is erect, white, with unequal branches tipped with red or violet; and *C. amethystina* (fig. 7) of a most delicate lemon colour. The mode of dressing fungi of this genus is to cleanse them well from earth, which is apt to adhere to them, then sweat them with a little butter over a clear fire and strain them, throwing away the liquor. After this you must stew them for an hour with salt, pepper, chopped chives, and parsley, moistening with a little plain broth, and dredging occasionally with flour; when cooked, to be thickened with cream, and yolks of eggs.

The third tribe, *Mitrati*, ranks under its banners two genera which produce excellent food. The first of these, *Helvella*, gives us two edible species—*H. crispa* and *H. lacunosa*. They grow on earth or on very wet wood, and emit an agreeable odour. Though of a permanent character, they are rather fragile, and much like the morel in flavour, being in Sweden and Germany often confounded with it. In Sweden it is called *Stenmuchla*; in Germany, *Gemeine Morchel*, *Stumpf Morchel*, or "Stock Morchel."

The other esculent species of this genus is *Morchella*, which

also affords two most delicious edible species—*M. esculenta* and *M. semilibera*. These, especially the former, are the most eagerly sought for, and the most highly-prized of any amongst the esculent fungi. Badham speaks of the *Morchella esculenta* as "that expensive luxury which the rich are content to procure at a great cost from our Italian warehouses, and the poor are fain to do without." *M. semilibera* is the other of these excellent species; but though very fine, it is inferior to *M. esculenta*.

The morel is found in greatest abundance where trees have been cut down, "which," says Loudon, "led to the practice in Germany of burning down masses of forests for the sake of the future morels. This practice proved so injurious, that it became necessary to suppress it by law." The appearance of the *Morchella* is very singular. Its cap varies considerably in shape and hue, and the surface is pitted into little cells, or pockets, formed by folds or plaits of the hymenium, which are called *ribs*. These ribs are very irregular. The cap is hollow, and opens into an irregular hollow stem. Gerard seems not to have been in the least degree aware of the real character of the morel, which would lead to the supposition that its use as an article of food, and its value as a culinary delicacy, were unknown at the period when he wrote. He gives a very correct drawing of *M. esculenta*, under the name of *Fungus fanaginosus*, or "the Hony-combe Mushroom," and says: "There is likewise a kind of mushroom called *Fungus fanaginosus*, growing up in moist and shadowy woods, which is also venomous; having a thick and tuberous stalk, an hand-full high, of a dusky colour, the top whereof is compact of many small divisions like unto the hony-combe."

The *Lycoperdons* next demand our attention. "All those more or less spherical white funguses, furnished with a membranous white covering, and filled, when young, with a white, compact, homogeneous pulp, which we call puff-balls, are good to eat," so writes Dr. Badham; and he adds, that those in most request abroad, and the best, are those which have no stem—that is, no sterile base.

Two species, *Lycoperdon plumbeum* (fig. 8) and *L. bovista*, are quoted as the best eating. The former of these may be found, either solitary or in groups, in dry places, and may be gathered in spring, summer, or autumn. Vittadini says: "After the warm rains of summer and autumn, myriads of these little plants suddenly springing up will often completely cover a piece of ground as if they had been sown like grain for a crop. If we dig them up we shall find that they are connected with long fragile threads, extending horizontally under ground, and giving attachment to numerous smaller puff-balls, in different stages of development, which, by continuing to grow, afford fresh supplies as the old ones die off." *L. plumbeum* is, when full grown, about the size of a walnut. Loudon figures it under the name of *L. pyriforme*—"the pear-shaped puff-ball." The other species named as among the best is *L. bovista*. This is the kind which is used for the purpose of throwing bees into a trance whilst the spoilers rifle their home of all its hoarded treasure. It used also, in former days, to be employed instead of lucifer matches, as it will, when dry, hold fire for a long time, and was often carried by rustics in a state of ignition for the purpose of lighting their cottage fires. *L. bovista* sometimes grows to an enormous size. The flesh is at first of snowy whiteness, but it should be eaten as soon as gathered, a few hours sufficing to turn it to dirty yellow, and destroying its firmness. When fresh, its thick, white fleshy substance renders it fit for all culinary purposes. The best method of dressing it is said to be, to cut it in slices, and fry it in egg and bread-crumbs. According to Vittadini, you may cut slices daily fresh from the living plant (provided that you do not break its connexions with the earth), and so have "a fine frittura every day for a week," which "frittura" Badham reports to "have the flavour of a rich light omelette."

One more noted species, the *Tuber cibarium*, or truffle, must close our imperfect catalogue of edible fungi. This curious species is found growing in clusters in clayey or sandy soil, some inches under the ground, as also in chalk; and is common on the Wiltshire downs, as well as in woods both in England

and Scotland. The form of truffles is nearly spherical, and their colour approaching black; they are studded over with pyramidal tubercles, and their spawn is phosphorescent and emits light. In England they seldom exceed a few ounces in weight, but on the Continent they are said to attain to many pounds weight. As there is no appearance above ground to indicate where the truffles lie, there is, of course, difficulty in discovering them; but so keen have men been in their appetite for this delicacy, that they have hit on the expedient of train-

which, amongst the various members of this extensive tribe, may be considered as a part of God's great gift of wholesome food for man, and which of them are possessed of deleterious or poisonous properties. Such an attempt on the part of those unused to such studies might be fraught with danger; because, although by no means of the mind of Tertullian, who wittily says of this order—

"Quot colores, tot dolores: quot species, tot perniciës;" yet we are well aware that there are but too many of the

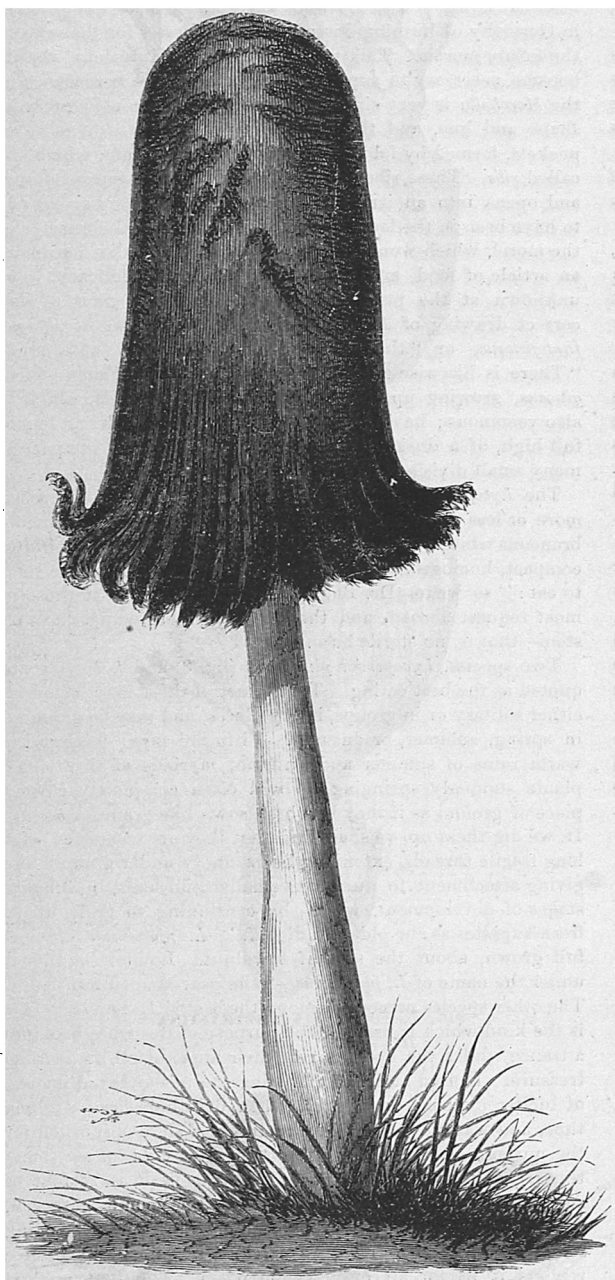


FIG. 1.—*AGARICUS COMATUS* (THE MANED AGARIC).

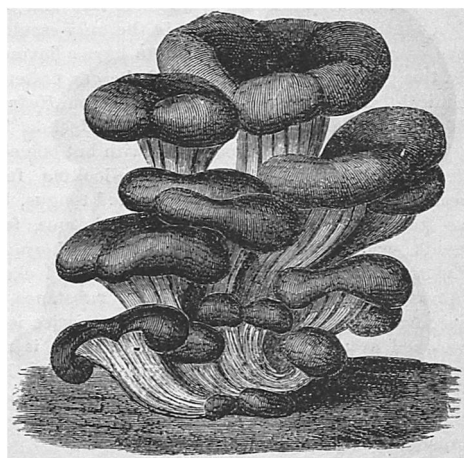


FIG. 2.—*AGARICUS OSTREATUS* (THE OYSTER).

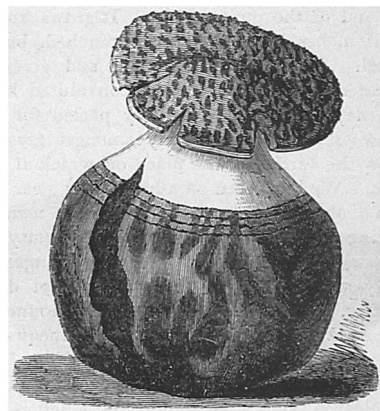


FIG. 3.—*AGARICUS RUBESCENS*.

ing dogs to scent them out. When the animals nose the prey, they stand, and whine, and scratch on the spot until their masters dig and take possession of the tubers. It is said that a *man* was once known capable of exercising this extraordinary function, and discovering truffles in the earth by their scent.

In the preceding pages we have not sought to give such a description of any species of the esculent fungi as might lead our general readers to endeavour to discriminate for themselves

species which are of an unsafe character, that might, on a mere cursory survey, be gathered and eaten in mistake for those which, bearing a near resemblance, were yet of wholly different properties, and perfectly safe and good for food. Our wish has been, and is, to draw the attention of the intelligent to the subject, and to endeavour to excite those who have time and opportunity to make some attempt to rescue this vast supply of food from the desuetude to which it is at

present sentenced. Surely, what God in his goodness bountifully provides, man should not wilfully neglect to use; and

sent withheld from using, it would not be time thrown away if he were to devote to the subject that portion of time and

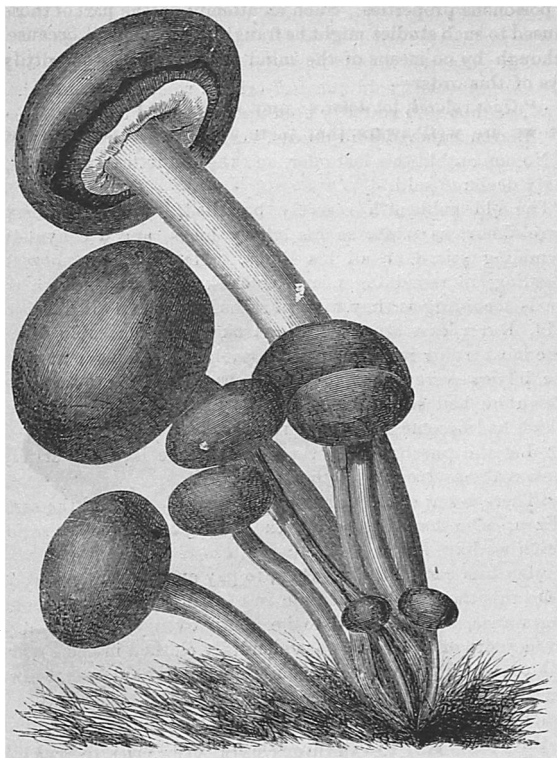


FIG. 4.—*AGARICUS CAUDICINUS*.

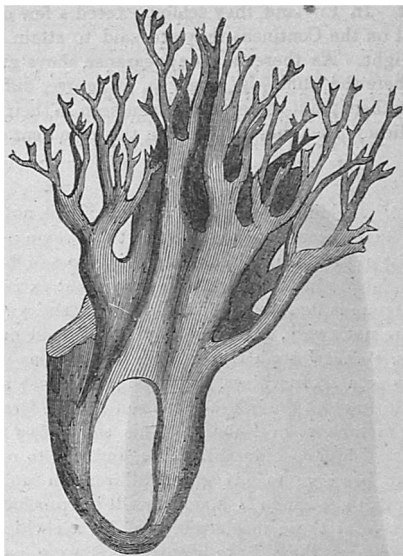


FIG. 6.—*CLAVARIA CORALLOIDES*.

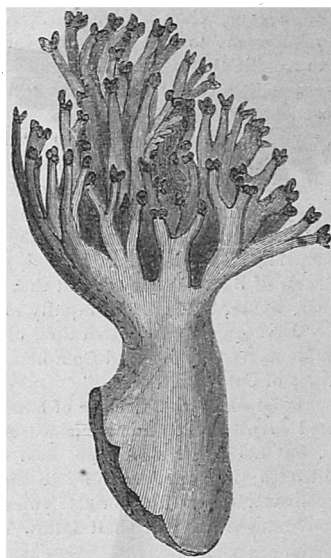


FIG. 7.—*CLAVARIA AMETHYSTINA*.

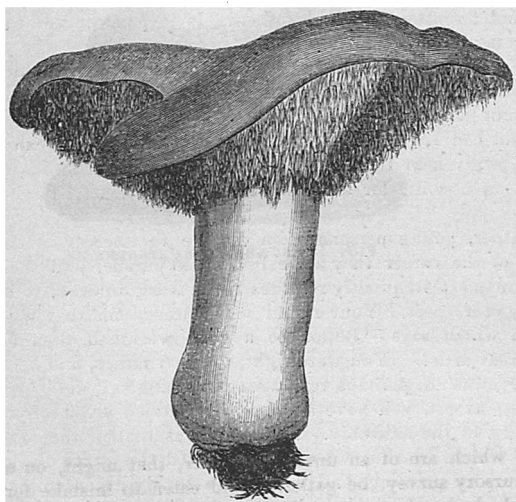


FIG. 5.—*HYDNUM REPANDUM*.

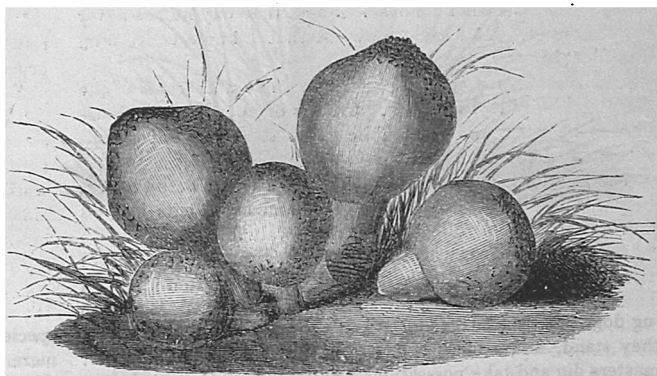


FIG. 8.—*LYCOPERDON PLUMBUM* (PEAR-SHAPED PUFF-BALL).

when a few weeks of study would enable a man of intelligence to place within the reach of his poorer neighbour a supply of food which, from his ignorance of its properties, he is at pre-

thought which is necessary to make him a safe judge of the properties of the different species of fungus which grow in the fields and woods around his dwelling.